Resonant driver applied in a cold cathode fluorescent tube

Patent number: TW460899B
Publication date: 2001-10-21
Inventor: PAN CHING-TSAI (TW); JUNG TAI-LANG (TW); WEI CHING-DE (TW)
Applicant: PAN CHING TSAI (TW); JUNG TAI LANG (TW); WEI CHING DE (TW)
Classification:
- international: ***H01J9/00;*** **H01J9/00;** (IPC1-7): H01J9/00
- european:
Application number: TW20000103203 20000222
Priority number(s): TW20000103203 20000222

Report a data error here

Abstract of **TW460899B**

The present invention is composed of the conventional semiconductor power switching device, inductor, capacitor, winding type transformer, and piezoelectric transformer to convert the input DC voltage into an AC power for driving a cold cathode fluorescent tube. By connecting the low voltage side of the conventional winding type transformer in series to the inductor and further to the output side of a conventional DC/AC bridge rectifier, connecting the high voltage side in parallel to the low voltage side of the piezoelectric transformer and the capacitor, and connecting the cold cathode fluorescent tube in parallel to the high voltage side of the piezoelectric transformer, a resonant driving circuit is formed to turn on the cold cathode fluorescent tube. The first feature of the present invention is to employ the piezoelectric transformer and the small-sized winding type transformer to achieve the effect being light and thin. The second feature of the present invention is to is to employ the resonant manner to match the piezoelectric transformer to achieve the effect of robustness and high efficiency. The third feature of the present invention is to employ a modulating frequency control in the control circuit, thereby obtaining the effect of adjusting the light output intensity.